

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	10/791,268	SHIM ET AL.
	Examiner Shelly A. Chase	Art Unit 2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to the application filed 3-3-2004.
2.  The allowed claim(s) is/are 1-33.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

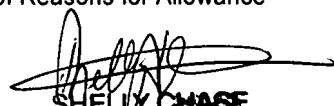
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 4-30-2004
4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.



**SHELLY CHASE**  
**PRIMARY EXAMINER**

**DETAILED ACTION**

1. Claims 1 to 33 are presented for examination.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119, which papers have been placed of record in the file.

***Information Disclosure Statement***

3. The reference listed in the information disclosure statement submitted on 4-30-2004 has been considered by the examiner (see attached PTO-1449).

***Allowable Subject Matter***

4. Claims 1 to 33 are allowed.
5. The following is an examiner's statement of reasons for allowance: the present invention is directed to a modulation method and a modulation apparatus that includes the step of "inserting a synchronization codeword including the multiplexing information for a multiplexed data stream, and performing data modulation and outputting plural modulated data stream." The prior art made of record teaches various methodologies of modulation, for instance, Sako (USP 5757752) discloses a recording method and recording apparatus comprising synchronization adding circuits that adds the synchronization data after the data is modulated. Kunisa et al. (USP 6654425 B1)

teaches a method and a circuit for digital modulation wherein an input data is multiplex by a multiplexer to generate a plurality of multiplexed blocks prior to modulation.

Kunisa (*comparison of two guided scrambling schemes for optical disks*) discloses a guided scrambling method that is used in digital recoding for DC suppression wherein the input data is multiplexed and scrambled in the scramblers.

Although, the prior art made of record teaches a method and an apparatus for modulation comprising a multiplexer, a scrambler and adding synchronization data; the prior art made of record taken alone or in combination fails to teach or fairly suggest or render obvious the novel element of the instant invention. The prior art made of record fails to teach or fairly suggest the step of "inserting a synchronization codeword including the multiplexing information for a multiplexed data stream, and performing data modulation and outputting plural modulated data stream..." as recited in the independent claims.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A. Chase whose telephone number is 571-272-3816. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decay can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SHELLY CHASE  
PRIMARY EXAMINER